

TROPICAL SCALLOP FOUND IN JERVIS BAY,  
NEW SOUTH WALES

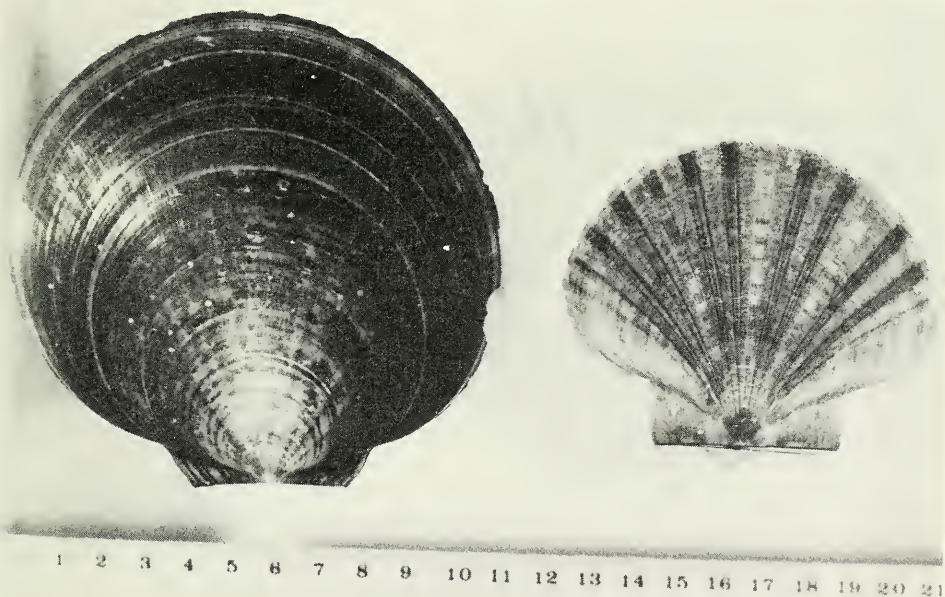
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An unusual capture of a tropical saucer scallop *Amusium japonicum balloti* (Bernardi, 1861) has been made by divers, from the Fisheries Research Institute, in the waters of Jervis Bay, New South Wales.

The normal Australian range of saucer scallops is reported as extending from Hervey Bay in southern Queensland, northward around tropical Australia to Esperance on the south coast of Western Australia (Young and Martin, 1989). Commercial fisheries for saucer scallops are located offshore from Townsville and Bundaberg in Queensland, as well as the Abrolhos Islands and Shark Bay in Western Australia.

The collection of *Amusium japonicum balloti* from Jervis Bay is the farthest south that this species has been recorded. The southernmost occurrence of *A. japonicum balloti* was previously recorded as Port Jackson by the Australian Museum (Iredale and McMichael, 1962; Loch, 1990, pers. comm.).



*Fig. 1. The saucer scallop (*Amusium japonicum balloti*) on left with a commercial scallop (*Pecten fumatus*) on right – both collected in Jervis Bay, N.S.W.*

The saucer scallop was captured in 17 metres of water on 13th November 1990 while SCUBA divers were collecting the commercial scallop *Pecten fumatus* (Reeve, 1852) off Murrays Beach, Jervis Bay (35°07'S, 151°45'E). In this area the substratum is sandy with algae and polychaete hummocks. The shape (Fig. 1) and colour of the scallop was normal for this species. The upper valve was dark reddish brown and the lower valve white flecked with brown. The specimen had a shell height of 103 mm and weighed 110.2 g. Maximum size and weight of this species are reported as 116 mm and 110.0 g, and the maximum age (based on tagging and length frequency) is three years (Heald and Caputi, 1981).

The saucer scallop found at Jervis Bay is 1300 kms south of Hervey Bay. The adult scallop is not capable of moving large distances; however, this occurrence so far from the tropics may be related to current patterns. The pelagic larvae may have been transported down the Queensland and New South Wales coasts by the East Australian Current (EAC). This dispersal is feasible as *Amusium* larvae have a 20 day pelagic phase; an average southward current of 1.7 knots would carry the larvae from Hervey Bay to Jervis Bay in 20 days. The velocity of the EAC and its eddies has been recorded as varying between 0.15 and 4.0 knots (Rochford, 1975). Alternatively, the scallop may have been spawned from an unknown saucer scallop, or bed of saucer scallops, existing in southern Queensland or New South Wales waters. The settlement and survival of a larva to grow into an adult saucer scallop 2-3 years old suggests that favourable environmental conditions have occurred in Jervis Bay in recent years for a tropical species.

#### References

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